



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/929,430	08/13/2001	Patricia S. Kruse	10010789-1	9651

7590 12/12/2006

HEWLETT-PACKARD COMPANY  
Intellectual Property Administration  
P.O. Box 272400  
Fort Collins, CO 80527-2400

EXAMINER

MILIA, MARK R

ART UNIT	PAPER NUMBER
----------	--------------

2625

DATE MAILED: 12/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/929,430

Applicant(s)

KRUSE, PATRICIA S.

Examiner

Mark R. Milia

Art Unit

2625

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 11 August 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-32 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Response to Reply Brief***

1. Applicant's Reply Brief filed 8/11/06 has been entered and made of record. Upon further review of the instant application the Examiner's Answer has been vacated and the action has been withdrawn. Prosecution has therefore been re-opened and a new Non-Final Office Action will follow.

### ***Claim Rejections - 35 USC § 101***

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 17-24 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The computer-executable instructions recite only functional descriptive material that does not provide practical application because it does not produce a useful, concrete, and tangible result and thus is considered non-statutory (see pages 52-54 of the interim guidelines).

Claims 25-32 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The claims call for a user interface that comprises various "areas" that are not process, machine, manufacture, or composition of matter. Such "areas" are merely representations of computer code and

arrangements or compilations of data or facts without any necessary functional or structural interrelationship to satisfy the requirements under 35 U.S.C. 101 (see pages 51-52 and 54 of the interim guidelines).

Claims 9-16 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The claims call for "A computer readable medium comprising computer-executable instructions" and should be changed to "A computer readable medium encoded with computer-executable instructions" (see page 53 of the interim guidelines).

Claims 1-8 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The claims call for a seemingly patentable process, ("method"), but in reality seek patent protection for an abstract idea of computer-executable instructions as evident by claims 9-16 and 17-24. Therefore, the claimed invention includes an abstract idea and is considered non-statutory for the same reason as claims 17-24.

In order for a claimed invention to accomplish a practical application, it must produce a "useful, concrete and tangible result" *State Street*, 149 F.3d at 1373, 47 USPQ2d at 1601-02 (see MPEP 2106.II.A). Currently, the claim does not recite a practical application. If the result is merely a thought or instructions, this is not a tangible or real-world result. For example, merely determining or calculating a price may not be held to be a tangible result, instead reasonably being interpreted as just a thought or a computation within a process, however, calculating a price of an item to sell

and then conveying the calculated price to a potential customer would be a tangible result. In order to for the claimed product to produce a “useful, concrete and tangible” result, recitation of one or more of the following elements is suggested:

- The manipulation of data that represents a physical object or activity transformed from outside the computer.
- A physical transformations outside the computer, for example in the form of pre or post computer processing activity. For example, the actual printing of the presentation package as opposed to merely just the instructions to print a presentation package, as currently recited in claims 1 and 17.

For convenience, the contents of pages 50-54 of the interim guidelines are provided below.

### **Computer-Related Nonstatutory Subject Matter**

Descriptive material can be characterized as either “functional descriptive material” or “nonfunctional descriptive material.” In this context, “functional descriptive material” consists of data structures and computer programs which impart functionality when employed as a computer component. (The definition of “data structure” is “a physical or logical relationship among data elements, designed to support specific data manipulation functions.” The New IEEE Standard Dictionary of Electrical and Electronics Terms 308 (5th ed. 1993).) “Nonfunctional descriptive

material” includes but is not limited to music, literary works and a compilation or mere arrangement of data.

Both types of “descriptive material” are nonstatutory when claimed as descriptive material per se. Warmerdam, 33 F.3d at 1360, 31 USPQ2d at 1759. When functional descriptive material is recorded on some computer-readable medium it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized. Compare *In re Lowry*, 32 F.3d 1579, 1583-84, 32 USPQ2d 1031, 1035 (Fed. Cir. 1994) (claim to data structure stored on a computer readable medium that increases computer efficiency held statutory) and Warmerdam, 33 F.3d at 1360-61, 31 USPQ2d at 1759 (claim to computer having a specific data structure stored in memory held statutory product-by-process claim) with Warmerdam, 33 F.3d at 1361, 31 USPQ2d at 1760 (claim to a data structure per se held nonstatutory).

50

When nonfunctional descriptive material is recorded on some computer-readable medium, in a computer or on an electromagnetic carrier signal, it is not statutory since no requisite functionality is present to satisfy the practical application requirement. Merely claiming nonfunctional descriptive material, i.e., abstract ideas, stored in a computer-readable medium, in a computer, on an electromagnetic carrier signal does not make it statutory. See *Diehr*, 450 U.S. at 185-86, 209 USPQ at 8 (noting that the claims for an algorithm in *Benson* were unpatentable as abstract ideas because “[t]he sole practical application of the algorithm was in connection with the programming of a general purpose computer.”). Such a result would exalt form over

substance. In re Sarkar, 588 F.2d 1330, 1333, 200 USPQ 132, 137 (CCPA 1978) (“[E]ach invention must be evaluated as claimed; yet semantogenic considerations preclude a determination based solely on words appearing in the claims. In the final analysis under § 101, the claimed invention, as a whole, must be evaluated for what it is.”) (quoted with approval in Abele, 684 F.2d at 907, 214 USPQ at 687). See also In re Johnson, 589 F.2d 1070, 1077, 200 USPQ 199, 206 (CCPA 1978) (“form of the claim is often an exercise in drafting”). Thus, nonstatutory music is not a computer component and it does not become statutory by merely recording it on a compact disk. Protection for this type of work is provided under the copyright law. When nonfunctional descriptive material is recorded on some computer-readable medium, in a computer or on an electromagnetic carrier signal, it is not statutory and should be rejected under 35 U.S.C. § 101. In addition, the examiner should inquire whether there should be a rejection under 35 U.S.C. § 102 or 103. The examiner should determine whether the claimed nonfunctional descriptive material be given

patentable weight. The USPTO must consider all claim limitations when determining patentability of an invention over the prior art. In re Gulack, 703 F.2d 1381, 1385, 217 USPQ 401, 403-04 (Fed. Cir. 1983). The USPTO may not disregard claim limitations comprised of printed matter. See Gulack, 703 F.2d at 1384, 217 USPQ at 403; see also Diehr, 450 U.S. at 191, 209 USPQ at 10. However, the examiner need not give patentable weight to printed matter absent a new and unobvious functional relationship between the printed matter and the substrate.

See *In re Lowry*, 32 F.3d 1579, 1583-84, 32 USPQ2d 1031, 1035 (Fed. Cir. 1994); *In re Ngai*, 367 F.3d 1336, 70 USPQ2d 1862 (Fed. Cir. 2004).

**(a) Functional Descriptive Material: “Data Structures” Representing Descriptive Material Per Se or Computer Programs Representing Computer Listings Per Se**

Data structures not claimed as embodied in computer-readable media are descriptive material per se and are not statutory because they are not capable of causing functional change in the computer. See, e.g., *Warmerdam*, 33 F.3d at 1361, 31 USPQ2d at 1760 (claim to a data structure per se held nonstatutory). Such claimed data structures do not define any structural and functional interrelationships between the data structure and other claimed aspects of the invention which permit the data structure’s functionality to be realized. In contrast, a claimed computer-readable medium encoded with a data structure defines structural and functional interrelationships between the data structure and the computer software and hardware components which permit the data structure’s functionality to be realized, and is thus statutory.

52

Similarly, computer programs claimed as computer listings per se, i.e., the descriptions or expressions of the programs, are not physical “things.” They are neither computer components nor statutory processes, as they are not “acts” being performed. Such claimed computer programs do not define any structural and functional interrelationships between the computer program and other claimed elements of a computer which permit the computer program’s functionality to be realized. In contrast, a claimed computer-readable medium encoded with a computer program is a computer element which defines structural and functional



interrelationships between the computer program and the rest of the computer which permit the computer program's functionality to be realized, and is thus statutory. See Lowry, 32 F.3d at 1583-84, 32 USPQ2d at 1035. Accordingly, it is important to distinguish claims that define descriptive material per se from claims that define statutory inventions.

Computer programs are often recited as part of a claim. USPTO personnel should determine whether the computer program is being claimed as part of an otherwise statutory manufacture or machine. In such a case, the claim remains statutory irrespective of the fact that a computer program is included in the claim. The same result occurs when a computer program is used in a computerized process where the computer executes the instructions set forth in the computer program. Only when the claimed invention taken as a whole is directed to a mere program listing, i.e., to only its description or expression, is it descriptive material per se and hence nonstatutory. Since a computer program is merely a set of instructions capable of being executed by a computer, the computer program itself is not a process and USPTO personnel

53

should treat a claim for a computer program, without the computer-readable medium needed to realize the computer program's functionality, as nonstatutory functional descriptive material.

When a computer program is claimed in a process where the computer is executing the computer program's instructions, USPTO personnel should treat the claim as a process claim. See paragraph IV.B.2(b), below. When a computer program is recited in conjunction with a physical structure, such as a computer memory, USPTO personnel should treat the claim as a product claim. See paragraph IV.B.2(a), below.

**(b) Nonfunctional Descriptive Material**

Nonfunctional descriptive material that does not constitute a statutory process, machine, manufacture or composition of matter and should be rejected under 35

U.S.C. § 101. Certain types of descriptive material, such as music, literature, art, photographs and mere arrangements or compilations of facts or data, without any functional interrelationship is not a process, machine, manufacture or composition of matter. USPTO personnel should be prudent in applying the foregoing guidance. Nonfunctional descriptive material may be claimed in combination with other functional descriptive multi-media material on a computer-readable medium to provide the necessary functional and structural interrelationship to satisfy the requirements of 35 U.S.C. § 101. The presence of the claimed nonfunctional descriptive material is not necessarily determinative of nonstatutory subject matter. For example, a computer that recognizes a particular grouping of musical notes read from memory and upon recognizing that particular sequence, causes another defined series of notes to be played, defines a functional interrelationship among that data and the computing processes performed when utilizing that data, and as such is statutory because it implements a statutory process.

***Response to Arguments***

Applicant's arguments received in the Appeal Brief filed on 3/22/06 regarding the rejection of claims 1, 4, 6-9, 12, 14, 15-17, 20, 22-25, 28, and 30-32, especially claims 1, 9, 17, and 25, have been fully considered but they are not persuasive.

In response to the applicant's arguments, on pages 8-17, the applicant asserts that the reference of Salgado fails to disclose, "specifying individual packaging characteristics". The examiner respectfully disagrees for the following reasons. First, Salgado shows in Figure 5 and column 6 lines 54-62 that each selected job segment has an associated print destination, i.e. printer or fax machine. Also, associated with each job segment are print job characteristics (see column 5 lines 41-49) such as paper stock, quantity (see abstract), and quality. In particular, quantity, i.e. number of copies, is a packaging characteristic. Secondly, Salgado also states that job requirements, i.e. quantity, quality, and finishing mode requirements, can be compiled at a remote storage or memory location on the network for later printing at the location of the storage device or printing at another designated printer on the network. In other words, selected remote files can be reproduced at different destinations or compiled at any given location for later retrieval and printing at another remote location (see column 7 lines 3-10). Salgado discloses a system in which each job segment can potentially be printed by a different printing device/destination and therefore each segments carries with it an associated packaging characteristic to enable proper execution, the packaging characteristics being set by the user. Still further, column 7 lines 11-53 show that each segment can be reproduced separate from any other segment. In other words, even though the segments are all part of a bigger job, each segment has it's own printing and packaging characteristics that allow the segment to be printed by a number of different out devices.

In response to the applicant's arguments, on pages 17-20, the applicant asserts that combining Kanerva with Salgado would not have been obvious. The examiner respectfully disagrees because Kanerva and Salgado disclose similar inventions. Particularly, Kanerva discloses a system in which binder document sections, documents from different applications, are organized as a single binder document, known as a binder file. The binder file can then be selected for printing, in which each binder document section is printed by dispatching commands to each of the application program modules that created the document (see column 17 lines 11-25).. Salgado states that each segment can have a different format. This is analogous to the binder document sections that are from different applications as disclosed by Kanerva. Therefore, it would have been obvious to combine Kanerva with Salgado, as both inventions are similar in scope and execution.

In response to the applicant's arguments, on pages 21-25, the applicant asserts that combining Hicks with Salgado does not disclose each recited feature of claims 3, 5, 11, 13, 19, 21, and 29. The examiner respectfully disagrees, as each feature is disclosed by the combination of Salgado and Hicks. Particularly, with regard to claims 3, 11, 19, and 27, Hicks discloses "identifying a first subset of the files that are to be included in the presentation package and a second subset of the files that are to be included in a general distribution package, wherein the second subset of files is different than the first subset of files" (see column 7 line 10-column 11 line 6). Hicks shows that there are four different document types which are analogous to subsets of files as recited in the above limitations, also the subsets contain different information even

though the information is based on the master document, as the other documents can contain additional information or less information, and the different document types can be printed in different output stacks, some being for general distribution "handout set" and some being for the presentation package "transparency set". With regard to the remaining claims, the above argument applies as the reference of Hicks discloses identifying subsets and indicating a number of copies to be printed (see column 9 lines 60-67).

***Claim Rejections - 35 USC § 102***

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

4. Claims 1, 4, 6-9, 12, 14, 15-17, 20, 22-25, 28, and 30-32 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5579087 to Salgado.

Regarding claims 1, 9, and 17, Salgado discloses a system comprising: adding a plurality of files to a presentation profile (see Figs. 4-6 and column 6 lines 15-42), specifying a set of individual printing characteristics with respect to each of the files (see column 5 lines 40-49), specifying a set of individual packaging characteristics with respect to each of the files (see column 7 lines 7-19), and responsive to a single print request, printing a presentation package including each of the files in the presentation profile based on the individual packaging characteristics and individual printing

characteristics corresponding to each of the files (see column 5 line 66-column 6 line 14).

Regarding claim 25, Salgado discloses a user interface comprising: a first area for adding a plurality of files to a presentation profile (see Figs. 4-6 and column 6 lines 15-42), a second area for specifying a set of individual packaging characteristics with respect to individual each of the files (see column 7 lines 7-19), a third area for indicating a set of individual printing characteristics with respect to individual each of the files (see column 5 lines 40-49), and a fourth area for printing a presentation package including each of the files in the presentation profile in response to a single print request, the printing being characteristics and individual printing based on the individual packaging characteristics corresponding to each of the files (see column 5 line 66-column 6 line 14).

Regarding claims 4, 12, 20, and 28, Salgado discloses the system discussed in claims 1, 9, 17, and 25, and further discloses selecting one or more options to identify how at least one subset of the files of the presentation package are packaged, the one or more options comprising stapling the at least one subset of files together and collating the at least one subset of files (see column 5 line 66-column 6 line 14 and column 7 lines 7-19).

Regarding claims 6, 14, 22, and 30, Salgado discloses the system discussed in claims 1, 9, 17, and 25, and further discloses indicating a number of copies to print with respect to a first subset of the files that are to be included in the presentation package (see column 7 lines 11-19).

Regarding claims 7, 15, 23, and 31, Salgado discloses the system discussed in claims 1, 9, 17, and 25, and further discloses identifying a specific printer to print each of the files (see column 6 line 54-column 7 line 10).

Regarding claims 8, 16, 24, and 32, Salgado discloses the system discussed in claims 1, 9, 17, and 25, and further discloses indicating which of a plurality of print media supply bins are to be used by a printer to print individual ones of the files (see Fig. 1 (11), column 5 lines 40-49, and column 7 lines 11-19, reference states that the user can specify the type of paper stock which inherently comes from a media supply bin).

### ***Claim Rejections - 35 USC § 103***

5. Claims 2, 10, 18, and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Salgado as applied to claims 1, 9, 17, and 25 above, and further in view of Kanerva (US 6026416).

Salgado does not disclose expressly wherein a first subset of the files were generated using a first computer program application, and wherein a second subset of the files were generated using a second computer program application that is different than the first computer program application.

Kanerva discloses wherein a first subset of the files were generated using a first computer program application, and wherein a second subset of the files were generated using a second computer program application that is different than the first computer

program application (see column 6 lines 11-16, column 9 lines 28-34, column 10 lines 46-51, and column 13 lines 18-23).

Salgado & Kanerva are combinable because they are from the same field of endeavor, printing compound documents containing a plurality of individual job segments.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the use of subsets containing files generated from different computer program applications as described by Kanerva with the system of Salgado.

The suggestion/motivation for doing so would have been to allow different kinds of documents to be processed and printed together to increase efficiency and grant the user greater control (see column 1 lines 12-35 and column 3 lines 30-60 of Kanerva).

Therefore, it would have been obvious to combine Kanerva with Salgado to obtain the invention as specified in claims 2, 10, 18, and 26.

6. Claims 3, 5, 11, 13, 19, 21, 27, and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Salgado as applied to claims 1, 9, 17, and 25 above, and further in view of Hicks (US5481353).

Regarding claims 3, 11, 19, and 27, Salgado does not disclose expressly identifying a first subset of the files that are to be included in the presentation package and a second subset of the files that are to be included in a general distribution package, wherein the second subset of files is different than the first subset of files.



Hicks discloses identifying a first subset of the files that are to be included in the presentation package and a second subset of the files that are to be included in a general distribution package, wherein the second subset of files is different than the first subset of files (see column 7 line 10-column 11 line 6, particularly column 8 lines 25-34, column 9 lines 60-67, and column 10 line 1-column 11 line 6).

Regarding claims 5, 13, 21, and 29, Salgado discloses indicating a number of copies to print with respect to a first subset of the files that are to be included in the presentation package (see column 7 lines 11-19).

Salgado does not disclose expressly identifying a subset of files that are to be included in a general distribution package and indicating a number of copies to print with respect to the subset of the files that are to be included in the general distribution package.

Hicks discloses identifying a subset of files that are to be included in a general distribution package and indicating a number of copies to print with respect to the subset of the files that are to be included in the general distribution package (see Figs. 3 and 4, column 8 lines 25-35, and column 9 line 60-column 11 line 6).

Salgado & Hicks are combinable because they are from the same field of endeavor, printing compound documents containing a plurality of individual job segments.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the use of subsets to categorize files for distribution and presentation as described by Hicks with the system of Salgado.

Art Unit: 2625

The suggestion/motivation for doing so would have been to provide increased flexibility and efficiency in producing compound documents for distribution.

Therefore, it would have been obvious to combine Hicks with Salgado to obtain the invention as specified in claims 3, 5, 11, 13, 19, 21, 27, and 29.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark R. Milia whose telephone number is (571) 272-7408. The examiner can normally be reached M-F 8:00am-4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Twyler M. Lamb can be reached at (571) 272-7406. The fax number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


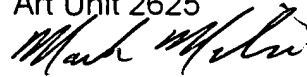
Art Unit: 2625

MRM

Mark R. Milia

Examiner

Art Unit 2625



KING Y. POON  
PRIMARY EXAMINER



KIMBERLY WILLIAMS  
SUPERVISORY PATENT EXAMINER